

Optimization 2002 vol.51 N6, pages 907-926

The method of multipliers for nonlinearly constrained variational inequalities

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Abstract

The method of multipliers for variational inequalities with nonstrictly monotone cost mappings and convex differentiable constraints is considered. We prove the convergence of the method with an arbitrary value of the penalty parameter. We suggest to evaluate accuracy of solutions of auxiliary subproblems with the help of gap functions.

<http://dx.doi.org/10.1080/0233193021000066473>

Keywords

Multiplier method, Nonlinear convex constraints, Variational inequality